1951. File No. GBI 1051

A CLASS

P.W. DEPARTMENT
N K BRANCH

Subject:—

Electric Grid Scheme, Bijapur.

Electrification of:—

1952

File No. GBI 1051-K

Std. Stt. Slip 24-B

593--1,00,000 7-60—K2*
(G. R., G. D., No. 2408, dated 22-6-22.)

Std. Sectt. 78 a.

DOCKET SHEET

Subject:—
Electrification of Ilkal, Hungund, etc. towns in Bijapur Dist.

File No. GB I/051

P.W. DEPT.

K. BRANCH.

References:—

Date.	To whom sent.	Notes and instructions.
12/11/51	SS	Pl. issue u.o.b. - S.D.
3.12.51	Br. XIV	Pl. intim. to PWD with Pl. nk 3/12

Statement No.1. Ilkal.

666

Items.	Administratively approved Amount Rs. I	Interim sanction from Government Rs. II	Cost as per pre sent Estimate Rs. III
1. Sub-estimate I:-			
a) Power Plant etc.	249,520	408,977	407,720
b) Building.	55,500	55,500	93,000
2. Sub-estimate II:-			
Transmission & Distribution Lines.	272,659		475,050
3. Sub-estimate III:-			
Transformers, Switchgear etc.	139,121	678,489	279,600
4. Sub-estimate IV:-			
Testing Apparatus.			9,072
	716,800	1,142,966	1,264,442

Rise of III over II = 10.63%.

Note for column II above:-

Item 1(a):- Rs.408,977 = Rs.324,772 Generating Plant & Equipment (sanction of 31.10.1949)

\+ 29,320 Step up transformers etc. (sanction of ~~31.10.1949~~ 19-6-'50)

\+ 54,885 (5% & 8% charges as adopted in nursery schemes including building)

Items 2,3, 4:- Rs.678,489 = Rs.711,738 (sanction of 19.6.1950 including 5% & 8%)

\+ 29,320 step up transformers etc. (including ed in item 1(a))

3,929 (5% & 8% charges as above).

DN Mehendale 6/10

Executive Engineer (D & S) II.

5/10

MAK/10.9.

STATEMENTNo.2.

ILKAL POWER STATION.

Cost of fuel:-

Rs.250/- per ton in the first year
Rs.250 - 5% = Rs.238/- per ton in the 2nd year.
Rs.250 - 10% = Rs.225/- per ton in the 3rd, 4th & 5th years.
Rs.225 - 5% = Rs.214/- per ton in the 6th & 7th years.
Rs.225 - 10% = Rs.202/- per ton in the 8th & 9th years.
Rs.225 - 15% = Rs.191/- per ton in the 10th year.

BASIS FOR TARIFF RATES:- As per rates and charges for Ratnagiri District with effect from 1.3.1951.

Year.	Probable M.D. in K.W.	Probable Revenue. Lighting Rs.	Power Rs.	Total Rs.	Probable sale of units. Lighting KWH.	Power KWH	Total KWH	Total units generated KWH	Approx. working cost Rs.	Depreciation & Interest Rs.	Net Profit or Loss Rs.
1st	42	13,735	21,436	35,171	27,485	80,300	1,07,785	1,39,066	64,797	83,906	- 1,13,532
2nd	86	34,338	41,968	76,306	68,713	1,60,600	2,29,313	2,78,823	75,237	"	- 82,837
3rd	106	51,507	49,188	1,00,695	1,03,069	1,92,720	2,95,789	3,55,271	79,717	"	- 62,928
4th	121	61,808	55,337	XXXXXXX 1,17,145	1,23,683	2,16,810	3,40,493	4,06,680	83,547	"	- 50,308
5th	134	68,676	61,484	1,30,160	1,37,425	2,40,900	3,78,325	4,50,187	86,777	"	- 40,523
6th	147	75,544	66,266	1,41,810	1,51,168	2,64,990	4,16,158	4,93,695	88,197	"	- 30,293
7th	161	82,411	72,293	1,54,704	1,64,910	2,89,080	4,53,990	5,37,202	91,287	"	- 20,489
8th	174	87,562	76,555	1,64,117	1,75,217	3,13,170	4,88,387	5,76,758	91,807	"	- 11,596
9th	187	92,713	82,444	1,75,157	1,85,524	3,37,260	5,22,784	6,16,315	97,877	"	- 6,626
10th	200	97,863	86,471	1,84,334	1,95,830	3,61,350	5,57,180	6,55,870	97,947	"	+ 2,481
		6,66,157	6,13,442	12,79,599					8,57,190	8,39,060	- 4,16,67

DETAILS REGARDING UNELECTRIFIED TOWNS.

1. Name of Town, Taluka, District & Division. — Gudur, Hungund Taluka, Dist: Bijapur.

2. Population in 1941 & % increase in the last 10 years — 3,629.

3. Principal industries of the population.

4. Probable immediate load. Non-industrial.

	Average load in K.W. Day.	Night.	Hours per year.	K.W.H./Year
1) Municipal street lights. 10x.06 + 30.03		1.5	2,184	3,276
2) Municipal Water & sewage Pumping.				
3) Railway Station load.				
4) Light & Fan load of Public Buildings e.g. Govt. Offices, Courts, Hospitals, Schools, etc.	a) 0.12	b) 0.32	a) 8 hrs./day for 300 days.	288
			b) 4 hrs./night for 300 days.	384
4 connections 4x4x.04 A.D. 50% Fans 4x06 A.D. 50%.				
5) Cinema Houses & Theatres.				
(20) 6) 20x.04		0.8	4 hrs./night for 365 days.	1,168
7) Hotels & Religious Institutions. Connections 10: 10x.06; Fans 6x.06	a) 0.36	b) 0.6	a) 6 hrs./day for 250 days.	540
			b) 4 hrs./night for 365 days.	876
8) General Domestic lights & Fans. Connections 50; 50x3x.025 A.D. 50% Fans; 25x.06 A.D. 50%.	a) 0.75	b) 1.875	a) 6 hrs./day for 200 days.	900
			b) 4 hrs./night for 365 days.	2,738
9) Officers' Residentials & Public places.				
10) Festivals & Marriage Occassions etc.				
Total.	1.23	5.095		10,170

5. Probable load from Industrial users.

2) Gin Presses.			
3) Looms, 5 connections; 60 looms.			
45 H.P. A.D.80% i.e. 36 H.P.	27	6 hrs./day for 300 days.	48,610
4) Oil Mills.			
5) Rice Mills.			
6) Agricultural Pumps.			
7) Workshops.			
8) Miscellaneous.			
Total.	27		48,610

Probable total immediate load :-

	Day	Night.
Non-industrial.	1.23 K.W.	5.095 K.W.
Industrial.	27.0 K.W.	
	28.23 K.W.	5.095 K.W.

It is assumed that 5.095 + 25% of day time load. may come at night.

= 5.095 + 7.06

= 12.155 K.W. (Night).

Load factor for day load = 80%.

∴ Total day load = 28.23x0.8 = 22,584 K.W.

∴ Max. demand = 22.584 + 25% of Night load.

= 22.584 + 5.095x0.25

= 22.584 + 1.274 = 23.858 K.W. (Day).

DETAILS REGARDING UNELECTRIFIED TOWNS

REVIEWED LOAD DATA.

1. Name of Town, Taluka, District and Division. — Hungund, Sulebhavi and Ilkal, - Hungund Taluka, Dist: Bijapur, Southern Division.

2. Population in 1941 and percent. increase in the last 10 years. — 34,000; 18% increase.

3. Principal industries of the population. — Sari manufacturing, Agricultural and Cotton Ginning centre.

4. Probable immediate load-Non-industrial.

		Average load in K.W. Day.	Night.	Hours per year.	K.W.H./year.
	1) Municipal Street lights. 50x.06 & 240x.03		10.2	2184	22,277
	2) Municipal Water and sewage Pumping.				
	3) Railway station load.				
(30)	4) Light & Fan load of Public Buildings e.g. Govt. offices, courts, hospitals, schools etc.				
	Lights 30x4x.04 AB 50%; Fans 30x.06 A.D.50%.	a) 0.9	b) 2.4	a) 8 hrs.(day load) for 300 days.	2,160
				b) 4 hrs. (Night load) for 300 days.	2,880
E.	5) Cinema Houses & Theatres, 2; 8 H.P. each at Ilkal & Sulebhavi.		12.0	5 hrs./day for 365 days.	21,900
(200)	6) Bazar lights 200x.04		8.0	4 hrs. (Night load) for 365 days.	11,680
(80)	7) Hotels & Religions Institutions.	a) 2.4	b) 4.8	a) 6 hrs./day for 250 days.	3,600
	Lights 80x.06; Fans 40x.06			b) 4 hrs./night for 365 days.	7,008
(850)	8) General Domestic lights & Fans.				
	Lights 3x850x.025 A.D.50%; Fans 200x06 A.D.50%.	a) 6.0	b) 31.88	a) 6 hrs./day for 200 days.	

9) Officer's Residentials & Public places.

5) Festivals & Marriage occassions etc.				
Total.	9.3	69.28		127.

5. Probable load from Industrial users.

1) Cotton Mills.				
2) Gin Presses.				
3) Looms; 13 Connections; 156 looms; 117 H.P. A.D.80% i.e. 93.6 H.P. Ilkal.	70.22	-	6 hrs./day, 300 days.	126,4
4 Connections 48 looms 36 H.P.A.D. 80% i.e. 28.8 H.P. - Sulebhavi.	21.6	-	6 hrs./day, 300 days.	38,890
4) Oil Mills.				
5) Rice Mills.				
6) Flour Mills. 1- 10 H.P. Ilkal.	7.5		6 hrs./day, 300 days.	13,500
1- 10 H.P. Sulebhavi.	7.5		6 hrs./day, 300 days.	13,500
7) Agricultural Pumps.				
8) Workshops.				
9) Miscellaneous.				
Total.	106.82			192,290

Probable total load immediately:-

	Day	Night.
Non-industrial	9.3 K.W.	69.28 K.W.
Industrial	106.82 K.W.	-
	116.12 K.W	69.28 K.W.

Load factor for day load = 80%
∴ Total day load = 116.12x0.8 = 92.896 K.W.
∴ Max. demand = 92.896 + 25% of night load.
= 92.896 + 69.28x0.25 = 92.896 + 17.32
= 110.216 K.W. (day).

(It is assumed that 25% of day time (load may come at night)
69.28 + 29.03
= 98.926 K.W. (Night)
98.31

∴ Combined max. demand for both Ilkal & Gudur:-
110.216 + 23.858 = 134.074 K.W. (day)
& 98.926 + 12.155 = 111.081 K.W. (night)

MK/19-8.

I. Features of the Towns:-

1) Ilkal:- The town of Ilkal is situated in Hungund Taluka. The nearest railway station is Bagalkot which is 38 miles off Ilkal. A P.W.D. Road connects Ilkal with Bagalkot. The total area covered by the town is 0.65 sq. mile.

2) Hungund:- This is a taluka town. The nearest railway station is Bagalkot, 30 miles off Hungund. It is situated on a P.W.D. road connecting Bagalkot with Ilkal. The total area covered by the town is 0.1 sq. mile.

3) Sulebhavi - Amingad:- Sulebhavi is a small town in Hungund Taluka. For revenue and other purposes, the town of Amingad, a mile off Sulebhavi is used. Amingad and Sulebhavi are 22 miles and 23 miles respectively from Bagalkot. The total area covered by both towns is 0.23 sq. mile.

4) Gudur:- This town is situated in Hungund Taluka and is 8 miles south of Amingad, 16 miles from Hungund, and 24 miles from Ilkal. The total area covered by the town is 0.08 sq. mile.

II. Population:-

Ilkal:- The population of Ilkal was 17,600 in 1941.

Hungund:- " " " Hungund " 6,748 " "

Amingad - Sulebhavi:- The population of Amingad - Sulebhavi was 9,549 in 1941.

Gudur:- The population of Gudur was 3,629 in 1941.

III. Scope of Electrical Development:-

As a part of the first stage of electrical development under the post war reconstruction schemes in the state, Government have approved the electrification of these towns. This proposal provides for the installation of a power station at Ilkal with the necessary equipment for generating electricity at 400/440 Volts, 50 cycles, A.C. & stepping up this voltage to 11 K.V., transmission to the transformer substations at 11 K.V., and distribution for domestic, industrial and street lighting purposes in the important parts of the towns at 400/230 volts. Details of the scheme are as under:-

a) Power House:- The land necessary for the building of the power station and laying out the necessary auxiliaries is acquired at the western end of the town. The layout of the building and auxiliaries and

and

and the machinery to be installed inside the building will be as shown in drawing No.DSII/195 enclosed.

b) Generation:- In the initial stage, one diesel engine alternator set of 200 K.W. and two of 100 K.W. each will be installed with the necessary auxiliaries. With the growth of load, it is proposed to instal an additional set when necessary later. Though the cost of this extension is not provided in this estimate, the design of the power station building has been made so as to accommodate the 4th set.

c) Outdoor Step up Sub-station:- The voltage is stepped up to 11,000 Volts by the installation of two Nos. of 150 KVA Transformers, 420/11000 volts in the power house compound.

d) Transmission:- From the step up substation in the power house, two 11 K.V. feeders are taken out, one along the main road to feed transformer substations in the load centres of Ilkal, and the other branching off to feed substations in the load centres of the remaining towns. The feeder will be run on rail poles 50/60 lb. section and the conductors will be of 6 S.W.G. copper.

e) Distribution:- The poles mounted outdoor transformer sub-stations will be one of 75 K.V.A. at Ilkal, one of 25 K.VA. each at Hungund, Amingad, Sulebhavi and Gudur. From each of these sub-stations a 3 phase, 4 wire distribution will be taken over the important streets of the town to feed industrial and domestic consumers. The distribution lines will be taken wherever possible on the same poles carrying 11 K.V. and singly along routes where no. H.T. line is taken. Copper conductors of different sizes suitable for giving proper voltage regulation ~~on the different sizes suitable for giving proper voltage regulation~~ on the different feeders will be used. A separate phase wire from the power house and each sub-station is provided for street light conductors, the operation of which will be controlled at the power house and sub-station. Guarding between H.T. & L.T. lines, and L.T. lines and the ground is to be provided.

f) Service Connections:- On a moderate estimate it is anticipated that 1024 domestic consumers, 25 industrial loads and

(120)

(40)

330 street lights will be connected up during the first five years of operation. This includes the cost to the Government on such connections.

g) Testing Apparatus:- The estimate includes the provision of the necessary workshop and other tools for the power station and transmission and distribution lines and also the important instruments required for the operation and maintenance of the installations.

MAK/17.9.

Letter. 13

No.Elg(D&S)II/ 29933
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1: 10 September 1951.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Detailed Estimates for the electrification of Ilkal, Hungund, ~~Subbhavi~~ Sulebhavi, Amingad and Gudur towns in Bijapur District.

I forward herewith in quadruplicate detailed estimates for revised administrative approval by the Government for the electrification of Ilkal, Hungund, ~~Subbhavi~~ Sulebhavi, Amingad and Gudur in Bijapur District.

In Government Resolution No.8993/36 of 21.1.1948, Government gave administrative approval to the electrification of these towns at the following costs:-

	Ilkal, Hungund, ~~Subbhavi~~ Sulebhavi, Amingad,	Gudur.
1) Sub-estimate I:- Power Plant etc.	Rs.251,500	53,520
2) Sub-estimate II:- Transmission and Distribution Lines.	" 200,900	71,759
3) Sub-estimate III:- Transformers, Switchgear etc.	" 122,300	16,821
	Rs.574,700	1,42,100

Joint Total = Rs.716,800/-

Whereas originally separate estimates were submitted for the towns as shown above, the estimate now submitted is for the electrification of all the five towns because the works pertain to one Scheme with only one Power House at Ilkal. Sub-estimate IV for Testing Apparatus has also now been included.

Under letters Nos. 8993/36-El(1) of 31.10.1949 and 8993/36-El(1) of 9.6.1950, Government sanctioned the expenditure of Rs.324,772/- for power plant at Ilkal. Adding 5% for contengencies and 8% for other charges which have been adopted in the nursery schemes hitherto, the amount works out to Rs.368,292/-.

Under letter No.8993/36-El(1) of 19.6.1950, Government sanctioned the placing of orders for step up plant and transmission and distribution line materials estimated at Rs.711,738/- which includes the contingencies and other charges mentioned in

the .....

15

the previous paragraph.

The above two interim sanctions being only for materials of long delivery, the matter of the remaining items like Power House Building, land, etc. were not dealt with previously.

As Government are aware, cost of building material and labour have also increased considerably. The administrative approval dated 21.1.1948 allowed for Rs.55,500 for these items which have now to be revised to Rs.93,000. A new item of Testing Instruments has to be included for Rs.9,072/- as the same was not provided in the original proposal of 13th October 1947.

Since submitting the first revised estimates for Transmission and Distribution Line materials under this office letter No.Elg.356/6530 of 12.4.1950, the prices of copper, steel and rubber have also increased. This year, there is no rate contract yet made by the Director General of Industries & Supplies for bare copper wires. Hence the rates included in the present estimates for same are those for the last year rate contract rates plus 20%.

A comparative statement of the cost of this scheme under each sub-estimate administratively approved by the Government and as now worked out is enclosed vide statement I.

The increase in interest and depreciation charges on account of higher capital cost and larger operation and maintenance charges due to:-

a) the price of fuel oil being about Rs.250/- per ton at site against Rs.165/- per ton assumed previously in the administratively approved estimates,

and (b) the increased charges on establishment due to increased cost of labour,

necessitate a revision; also of the Revenue Forecast on the basis of which the scheme was administratively approved.

The tariff rates assumed for calculating revenue are therefore taken as those which have been sanctioned for Ratnagiri District and which are in force from 1.3.1951.

In the original estimates submitted for Administrative approval .....

approval in 1947, plant capacity of the power station proposed was 300 K.W. as based on the load forecast made previously. However, on subsequent visits to the place and the experience gained in the operating stations in Ratnagiri District, it was considered that the load forecast originally made did not now represent adequately the probable increased demand for electrical energy. The load forecast was accordingly reviewed with the result that the 5th year maximum demand and the total units generated in the year were 134 K.W. and 450,187 K.W.H. as against 118 K.W. and 397,613 K.W.H. respectively in the same year as per original load forecast. This necessitated suitable addition to the plant which was consequently increased from the original 300 K.W. to 400 K.W. Government were pleased to sanction the placing of order for the 400 K.W plant as per their letters Nos. 8993/36-El(1) of 31.10.1949 and 9.6.1950.

△ Slip B. Rl 8993/36 p.63 Slip C —do— p.131

The Revenue Forecast for the first ten years worked out on the above basis of the revised load data is shown in statement II.

It will be seen that the scheme is self supporting in the 10th year of operation at the new tariff unlike the original proposal which showed a negligible loss with the old tariff in the 10th year of operation.

Since both the capital cost and Revenue Forecast of the scheme have materially changed, revised administrative approval to the scheme is necessary, which may kindly be accorded. It is necessary to mention that in view of the frequent fluctuations in the present market conditions, the rates assumed in the estimates for materials yet to be ordered are only those as are now known and therefore to be treated as approximate.

B K Rhasad
Chief Engineer. 20/10/51

MAK/10.9.

GBI 1051/90946.
PWD

K Br

19

fp 13-17

Submitted

Δ file A
in 8993/36 I
fp 125-131

2. In G.R. No. Δ 8993/36, dated the 21-1-48, Govt. has given administrative approval to the electrification of Ilkal, Hungund, Sulebhavi Amingad and Gudur towns in Bijapur Dist. at an estimated cost of Rs. 7,16,800/-. The fp 13-17 C.E., B.E.G, has now submitted detailed

Δ put up below. Δ estimates amounting to Rs. 12,64,442/- for according revised administrative approval to the above scheme. The reasons for submitting these revised estimates have been fully explained by the C.E. fp 13-17 in his letter written. The proposal of the C.E. may be accepted in c/o. consultation with the F.D.

Thro'. X Br. S.E. (9).

9.11.51.

X. Br

3. There is a provision of Rs. 3,87,700/- for the work in the current year's budget under the head "81-A. Capital Outlay on El. Schemes."

D.S. (P+L).

9/11/51

D.S. (I&E)

13

20

U.O. to the F.D. dt. 12th Nov. 1957
(with files Nos. 8993/36 - Pts. I + II + plans & estimates)

FINANCE DEPARTMENT
No. V
Dated 12.11.51
Serial No. 29747

Finance Deptt. (III)

Please see the Chief Engr.'s letter at pp. 13-17, wherein he has given the detailed reasons for the increased revised estimates. The estimates were previously approved at Rs.7,16,800 in G.R., P.W.D. No.8993/36 of 21st January 1948. The revised cost is now estimated at Rs.12,64,442/-. The main reasons for the increased cost are (i) the increase in the cost of labour and material, (ii) an addl. sub-estimate IV for testing Apparatus and (iii) the necessity for addition to the plant on account of the increase in the power capacity from 300 K.W. to 400 K.W. It is pointed out that Govt. sanction has been obtained from time to time to placing of orders for machinery and material at a cost more than the originally approved estimate. The scheme has been already brought to the notice of the L.A. and there is a provision of Rs.3,87,700/- in the current year's budget under "81-A - Capital Outlay on electricity scheme - P.W.R. and D. & P." The financial forecast of the scheme is already prepared and, it is expected to be self-supporting in the tenth year of its working scheme, under vide statement No. 12-3. The tariff rates assumed in calculating revenue are those sanctioned in the case of Ratnagiri Distt. which are in force from 1st March 1951. In the circumstances, the revised estimate seems reasonable and may, therefore, be accepted in this Department.

13.11.51
14

2. L.A's approval was obtained to

a total estimated cost of Rs. 7,16,800 only by means of a new item (vide item No. 59 in P.W.D. Budget for 1949-50 under the head "81-A - Capital Outlay on Electricity Schemes".) The revised cost of the work has now gone up to Rs. 12,64,442. Since the increase over the original estimate approved by the L.A. is considerable, the P.W.D. may be informed that fresh approval of the Legislature will be necessary in this case, which may be obtained by means of a token supplementary demand during the current financial year.

27-11-51.

A is for orders

D.E.B.

US(Bud)

DS(Bud)

Secy.

Fresh approval of the L.A. is necessary. This may be done by presenting a token demand.

29/11/51

UR to the P.W.D. dt. 3.12.51.

(With ff. as in flag page)

WS(H)

1-12

1/12

✓ 00 3-5 of file

✓ Sent to F.D. vide Sl. No. NP-86-X, dated the 17-12-51.

BSN 19/12/51

To K.Br.

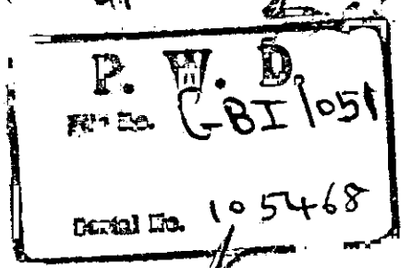
Pl. to take necy. action so far as supplementary demand is concerned & return the papers to K.Br.

11/12/51

Shri Asst.
19/12/57

22

Shri Asst. (bk shpar)
4/12/57 K 4/12



4-12-57

GBI 1051
105468

P. W. D.

K.Br.

Submitted with refce. to the O.Ns. on p. 19 ante.

2. The F.D. has agreed to this Deptt. proposal to give revised administrative approval for the electrification of Ilkal, Hungund, Sulebhavi, Amingad and Gudur in Bijapur District at an estimated cost of Rs.12,64,442/-

3. Necessary action to obtain the token supply demand for the work in question in the Jany. Session of the L.A. has already been taken separately.

4. The necy. draft resolution put up may now issue, if approved.

Thro' X.Br.& D.E.(I).

MAB/9/1/52.

9/1/52.

S.S. (SLE)

Secy

(after sine)

25

Electrification of certain Towns in Bijapur Dist.

Government of Bombay.
Public Works Department.
Resolution No.GBI 1051.
Bombay Castle (Bombay No.1),
14th January 1951.

Sec A
Jt 8993/36 I
Pp 125-131

Government Reso. No.8993/36, dated the 21-1-1948.

Letter from the C.E., B.E.G., No.Elg.(D&S) II/29933, dated the 20-10-51, as under:- Pp 13-17

(Enter) *

RESOLUTION:- The revised estimates amounting to Rs.12,64,442 for the electrification of Ilkal, Hungund, Sulebhavi, Amingad and Gudur in Bijapur Dist. are approved administratively.

2. The expenditure on the work should be debited to the head "81-A-Capital Outlay on Ely. Schemes".

By order of the Govr. of Bombay,

Deputy Secy. to Govt.

* pp.9 to 12(a) to be printed as an accompt. to the Reso.

To
The F.D.
The D.D.
The R.D.
The L.S.G.& P.H.D.
The Collr. of Bijapur.
The C.E.,B.E.G.(with estimates).
The S.E., S.C.
The El. Engr.to Govt.
The Ex.Engr., Poona Elecl. Dn.
The A.G., Bombay.

Class C

9/1/52

MAB/9/1/52.

Issue Pp 25 + resubmit to F.D.
U.O. slip
11/1/52
12

14/1

GOVERNMENT OF BOMBAY.
Public Works Department.
Resolution No. GBI 1051.
Bombay Castle (Bombay No.1),
14th January 1952.

Government Resolution No.8993/36, dated the 21st January 1948.

Letter from the Chief Engineer, Bombay Electric Grid, No.Elg.(D&S) II/29933, dated the 20th October 1951, as under:-

*Printed as an accompt. to this G.R.

"I forward herewith in quadruplicate detailed estimates with a note* for revised administrative approval by the Government for the electrification of Ilkal, Hungund, Sulebhavi, Amingad and Gudur in Bijapur District.

In Government Resolution No.8993/36 of 21st January 1948, Government gave administrative approval to the electrification of these towns at the following costs :-

	Ilkal, Hungund, Sulebhavi, Amingad	Gudur.
1) Sub-estimate I: Power Plant etc.	Rs. 251,500	53,820
2) Sub-estimate II: Transmission and Distribution Lines.	Rs. 200,900	71,759
3) Sub-estimate III: Transformers, Switchgear, etc.	Rs. 122,300	16,821
	Rs. 574,700	1,42,100

Joint Total = Rs.716,800/-

Whereas originally separate estimates were submitted for the towns as shown above, the estimate now submitted is for the electrification of all the five towns because the works pertain to one Scheme with only one Power House at Ilkal. Sub-estimate IV for Testing Apparatus has also now been included.

Under letters No.s.8993/36-El.(1) of 31st October 1949 and 8993/36-El.(1) of 9th June 1950, Government sanctioned the expenditure of Rs.324,772/- for power plant at Ilkal. Adding 5 per cent. for contengencies and 8 per cent. for other charges which have been adopted in the nursery schemes hitherto, the amount works out to Rs.368,292/-.

Under letter No.8993/36-El.(1) of 19th June 1950, Government sanctioned the placing of orders for step-up plant and transmission and distribution line materials estimated at Rs.711,738/- which includes the contingencies and other charges mentioned in the previous paragraph.

The above two interim sanctions being only for materials of long delivery, the matter of the remaining items like Power House Building, land, etc. were not dealt with previously.

As Government are aware, cost of building material and labour have also increased considerably. The administrative approval dated 21st January 1948 allowed for Rs.55,500 for these items which have now to be revised to Rs.93,000. A new item of Testing Instruments has to be included for Rs.9,072/- as the same was not provided in the original proposal of 13th October 1947.

Since.....

Since submitting the first revised estimates for Transmission and Distribution Line materials under this office letter No.Elg.356/6530 of 12th April 1950, the prices of copper, steel and rubber have also increased. This year there is no rate contract yet made by the Director General of Industries and Supplies for bare copper wires. Hence the rates included in the present estimate for same are those for the last year rate contract rates plus 20 per cent.

A comparative statement of the cost of this scheme under each sub-estimate administratively approved by the Government and as now worked out is enclosed vide statement I.

The increase in interest and depreciation charges on account of higher capital cost and larger operation and maintenance charges due to :-

(a) the price of full oil being about Rs.250/- per ton at site against Rs.165/- per ton assumed previously in the administratively approved estimates, and

(b) the increased charges on establishment due to increased cost of labour,

necessitate a revision; also of the Revenue Forecast on the basis of which the scheme was administratively approved.

The tariff rates assumed for calculating revenue are therefore taken as those which have been sanctioned for Ratnagiri District and which are in force from 1st March 1951.

In the original estimates submitted for administrative approval in 1947, plant capacity of the power station proposed was 300 kW. as based on the load forecast made previously. However, on subsequent visits to the place and the experience gained in the operating stations in Ratnagiri District, it was considered that the load forecast originally made did not now represent adequately the probable increased demand for electrical energy. The load forecast was accordingly reviewed with the result that the 5th year maximum demand ~~for~~ and the total units generated in the year were 134 kW. and 450,187 K.W.H. as against 118 kW. and 397,613 K.W.H. respectively in the same year as per original load forecast. This necessitated suitable addition to the plant which was consequently increased from the original 300 kW. to 400 kW. Government were pleased to sanction the placing of order for the 400 kW. plant as per their letters Nos. 8993/36-El.(1) of 31st October 1949 and 9th June 1950.

The revenue Forecast for the first ten years worked out on the above basis of the revised load data is shown in statement II.

It will be seen that the scheme is self-supporting in the 10th year of operation at the new tariff unlike the original proposal which showed a negligible loss with the old tariff in the 10th year of operation.

Since both the capital cost and Revenue Forecast of the scheme have materially changed, revised administrative approval to the scheme is necessary, which may kindly be accorded. It is necessary to mention that in view of the frequent fluctuations in the present market conditions, the rates assumed in the estimates for materials yet to be ordered are only those as are now known and therefore to be treated as approximate."

RESOLUTION. - .....

RESOLUTION. - The revised estimates amounting to Rs.12,64,442/- for the electrification of Ilkal, Hungund, Sulebhavi, Amingad and Gudur in Bijapur District are approved administratively.

2. The expenditure on the work should be debited to the head "81-A - Capital Outlay on Electricity Schemes".

By order of the Governor of Bombay,

...rs issued after cons... Finance Dep... ...s remain with this Secretariat and can boe seen when required.

V. W. GOTHOSKAR,
Deputy Secretary to Government. 2 pps.

G.R.No.GBI 1051, P.W.D., dated the 14th Jan. 1952.

To

The Finance Department,
The Development Department,
The Revenue Department,
The Local Self Government and Public Health Department,
The Collector of Bijapur,
The Chief Engineer, Bombay Electric Grid, (with + X estimates),
The Superintending Engineer, Southern Circle,
The Electrical Engineer to Government,
The Executive Engineer, Poona Electrical Division,
The Accountant General, Bombay.

CLASS 'C'.

No. of 1952.

Copy forwarded for information and guidance to -

Accompaniment to Government Resolution, Public Works Department, No.GBI 1051, dated the 14th January 1952.

+ W.A. ISSUED 19/1/52

Note. Ilkal.

I. Features of the Towns:

(1) Ilkal:- The town of Ilkal is situated in Hungund Taluka. The nearest railway station is Bagalkot which is 38 miles off Ilkal. A P.W.D. Road connects Ilkal with Bagalkot The total area covered by the town is 0.65 square mile.

(2) Hungund:- This is a taluka town. The nearest railway station is Bagalkot, 30 miles off Hungund. It is situated on a P.W.D. road connecting Bagalkot with Ilkal. The total area covered by the town is 0.1 square mile.

(3) Sulebhavi-Amingad:- Sulebhavi is a small town in Hungund Taluka. For revenue and other purposes, the town of Amingad, a mile off Sulebhavi is used. Amingad and Sulebhavi are 22 miles and 23 miles respectively from Bagalkot. The total area covered by both towns is 0.23 square mile.

(4) Gudur:- This town is situated in Hungund Taluka and is 8 miles south of Amingad, 16 miles from Hungund, and 24 miles from Ilkal. The total area covered by the town is 0.08 square mile.

II. .....

II. Population.

Ilkal:- The population of Ilkal was 17,600 in 1941.

Hungund:- The population of Hungund was 6,748 in 1941.

Amingad - Sulebhavi:- The population of Amingad - Sulebhavi was 9,549 in 1941.

Gudur:- The population of Gudur was 3,629 in 1941.

III. Scope of Electrical Development.

As a part of the first stage of electrical development under the post-war reconstruction schemes in the State, Government have approved the electrification of these towns. This proposal provides for the installation of a power station at Ilkal with the necessary equipment of generating electricity at 400/440 Volts, 50 cycles, A.C. and stepping up this voltage to 11 K.V., transmission to the transformer substations at 11 K.V., and distribution for domestic, industrial and street lighting purposes in the important parts of the towns at 400/230 volts. Details of the scheme are as under:-

(a) Power House. - The land necessary for the building of the power station and laying out the necessary auxiliaries is acquired at the western end of the town. The layout of the building and auxiliaries and the machinery to be installed inside the building will be as shown in drawing No.DSII/195 enclosed.

(b) Generation. - In the initial stage, one diesel engine alternator set of 200 kW. and two of 100 kW. each will be installed with the necessary auxiliaries. With the growth of load, it is proposed to instal an additional set when necessary later. Though the cost of this extension is not provided in this estimate, the design of the power station building has been made so as to accommodate the 4th set.

(c) Outdoor Step-up Sub-station. - The voltage is stepped up to 11,000 Volts by the installation of two Nos. of 150 KVA Transformers, 420/11000 volts in the power house compound.

(d) Transmission. - From the step-up substation in the power house, two 11 K.V. feeders are taken out, one along the main road to feed transformer substations in the load centres of Ilkal, and the other branching off to feed substations in the load centres of the remaining towns. The feeder will be run on rail poles 50/60 lb. section and the conductors will be of 6 S.W.G. copper.

(e) Distribution. - The poles mounted outdoor transformer sub-stations will be one of 75 K.V.A. at Ilkal, one of 25 K.V.A. each at Hungund, Amingad, Sulebhavi and Gudur. From each of these sub-stations a 3-phase, 4-wire distribution will be taken over the important streets of the town to feed industrial and domestic consumers. The distribution lines will be taken wherever possible on the same poles carrying 11 K.V. and singly along routes where no High Tension line is taken. Copper conductors of different sizes suitable for giving proper voltage regulation on the different feeders will be used. A separate phase wire from the power house and each sub-station is provided for street light conductors, the operation of which will be controlled at the power house and sub-station. Guarding between H.T. and L.T. lines, and L.T. lines and the ground is to be provided.

(f) ....

(f) Service Connections. - On a moderate estimate it is anticipated that 1024 domestic consumers, 25 industrial loads and 330 street lights will be connected up during the first five years of operation. This includes the cost to the Government on such connections.

(g) Testing Apparatus. - The estimate includes the provision of the necessary workshop and other tools for the power station and transmission and distribution lines and also the important instruments required for the operation and maintenance of the installations.

BAK
14/1/52.

KPR
24/1

Stem Anl
24/1/52

32

33 GBI 1051/1057 68.

QMG.

KBx.

Resubmitted for information after issue of G.R. on pp 27-31 ante.

28/1/52.

Secy.

H.M.

28/1

28/1

28/1

1/2

Rec'd 4/2/52

URGENT

Electric Grid Offices

This has reference to my telephone conversation with Shri Bedekar, Secy. to Govt., P.W.D..

2. A few days back, Shri S. R. Kanthi, Parliamentary Secretary to H.M.,Agriculture, told me that he and M.L.As. from Bijapur wish that Hon'ble the Chief Minister should lay the foundation stone of Guledgud and Ilkal power houses,during his next tour, by the end of this month. I informed him that the site of Guledgud had been partially handed over, and that of Ilkal was under dispute and argument with the Municipal Council, and that no work was in progress in either stations, as tenders for building contracts had not yet been invited. He, however, said that it was not necessary that work should be in progress and that the foundation stone may be laid at the approximate location and transferred and built in the masonry when construction was undertaken.

3. Shri Kanthi has now written to me a D.O. dated 31-3-51, from Dharwar (copy enclosed), suggesting that a formal request may be made to the Hon'ble the Chief Minister.

4. So far as this department is concerned, the position is as follows :-

Guledgud : The main part of the land has been handed over and tenders have been invited for the construction work. There is, however, no possibility of any construction work being started before the end of the monsoon.

Ilkal : By the intervention of Shri Kanthi the Municipal Council has passed a resolution agreeing to hand over the plot to this department for use of the power house, formal acquisition proceedings are, however, in progress. Tenders have not yet been invited.

5. In both these places,the actual position of/

P.S.

of the power station buildings is determinable and so also the corner where the stone may now be laid and later removed and rebuilt in main masonry. The arrangement of the present work proposed is somewhat on the lines shown in the blue print enclosed.

6. In discussion between Shri Kanthi and Shri Karandikar, Executive Engineer of this Department, Shri Kanthi has said that the local people at Guledgud and Ilkal will arrange for the reception of Hon'ble the Chief Minister and that no expenditure other than connected with the masonry work and inscribed slab should be incurred by this department. It is estimated that the cost of these items would be around Rs. 250/- for each station as per the estimate attached.

7. I would like to have further instructions of Government in the matter : we require about a fortnight's notice to make arrangements, specially the part dealing with marble tablet.

T. T. Karandikar
4.4.51.

The Secy. to Govt.,
P.W.D., Bombay.

U.O.R.No.C2/46/ 4514
4th April 1951.

Encl: 3.

ARK.4.4.51.

E/Br I 514
F. W. D.
No. 8993/36
No. 30043

37

Camp: Dharwar
31.3.51.

Dear Shri Mirchandani,

I tried to contact you on the 'phone before I left Bombay, but, could not catch you. So I am taking this opportunity of writing to you.

I had a talk with Rao Saheb G. K. Rao - Personal Assistant to H.C.M. and he told me that it is better if a formal request is made by you to lay the foundation stone of Ilkal and Guledgud power houses. The M.L.As. from the Bijapur Dist. have already made a request. Will you, therefore, please make a request in this connection ?

Yours sincerely,

Sd/- S.R.Kanthi

Parliamentary Secy., Govt.of Bombay.

ARK.4.4.51.

5-39

Subject : Power House at Guldgud.

Probable cost of arrangements for Corner Stone laying ceremony.

1. Excavation for foundation=7.5.X2.5X1.5 =30cft at Rs.6/- =		2- 0-0
2. C.R.Stone Masonry (Sand stone) Khandki faced in C.M.(1:10)	=7.5X2.5X1.5 +7.5X1.5X3 =62 cft.at Rs.120 %	74- 0-0
3. Marble stone tablet =2'-6"X1'-6"= cost of tablet =95/- Transportation +Incidentals=15/- cost of fixing etc. =10/-	Rs.120	120- 0-0
	Contengncies.etc.	14- 0-0
	Total :	210- 0-0

nmj/-

9+3 8993/36
30043

I request H.M. P.W.D to accept the invitation. The M.L.A.s of Bijapur Dist, have told me that, in case H.C. M. cannot agree, H.M. P.W.D may be requested. The towns which will be covered by these nursery schemes being important industrial centres it would be in the fitness of things if one of our Senior ministers lays the foundation stones of the two power stations.

In the meanwhile, plans & estimates may be made & the exact location of the building fixed. There are no difficulties now so far as Ilkal is concerned. A.S.s come from that place; I will do what all is possible to overcome the difficulties if any still remain.

8994/36
30043 My anxiety is that this should be done before the monsoon sets in.

In the case of the construction of buildings for Agri School Rajkot, similar difficulties had been encountered. The foundation stone was laid by H.M. Agri, before any plans & estimates had been made. Subsequently the office building was built exactly at the place where the foundation stone had been laid without disturbing it. I do not know if some such thing cannot be done here too.

Sd/- K. Santhi
17/4/51.
P.S. to H.M. Agri.

H.M. P.W.D

Pvt Secy Shri Kunthi will kindly see
Discuss with P.S. Shri Kunthi on the subject
him the question of the tentative Shree Ganesh be performed
until P.S. to E.S. are ready. Then these can be undertaken.

GBI 1051
38300

Electric Grid Offices.

The instructions in the minute by the H.M.-P.W.D. have been noted and the file is returned herewith.

1551.

The Secy. to Govt.,
P.W.D., BOMBAY.

U.O.R. No. E2/46/I/ 12281
Bombay 1, May 1951.

K 2/4
D.
GBI 1051
38300
K.

K.Be
P.W.D.
Submitted with reference to the O.M. cited.
2. The result of the plans and estimates may be awaited.

H-45

8993/36/30043

K.B

P.W.Q.

Resubmitted.

2. The C.E., Bombay Electric Syd may see the H.H.'s minute 40 for information.

584.

23/4/51

Kjs 3/4/51

C.E., El. Syd,

8-25-4-51

OFFICE OF THE ELECTRICAL COMMISSIONER WITH THE GOVERNMENT OF BOMBAY
Inward No. 11633
Date 25/4

EE(CD)

P.T.O.

+3. 47

GBI 1051

38300

K.B.

P.W.D

Resubmitted.

2. The C.E., B'bay. Electric Grid, may be requested to state the position with reference to the H.M.'s minute at P 1c ante

421

5/7/57

U.O. to the C.E., B.E.S., dt: 7th July 1957

AAS.

EE(CD)

9/7/57)

9/7/57 10/7

ELECTRICAL ... WELL ...

... 19466

... 9/7

Issue U.O

- 6/7/57

Below Govt.,P.W.D.,U.O.R.No.GBI.1051
38300,
dated 7th July 1951.

Electric Grid Offices

Referring to the above U.O.R., I have to state as follows :-

2 Guledgud -- Revised administrative approval for this scheme has been recently received from Government and the contractor has been asked to sign and complete the contract documents for the construction of power house building at Guledgud. The contractor will start the preliminary work such as collection of material and excavation of foundations, shortly after signing the contract, but it is expected that the contractor may not be able to show appreciable progress during the monsoon season.

3 Ilkal -- The power house site has been taken over by this department and the work of excavating a well is in progress, so also the designs and estimates for the power house building. Estimates for the whole scheme are also in hand and will be shortly submitted to Government for revised administrative approval.

4. The question of finalising the site, however depends on the results of the well which is now under construction. If the well yields adequate quantity of water, the site will be finally selected and further work will be taken in hand. We will have to go in for another site in case the well fails.

13/7/51

The Secy. to Govt.,
P.W.D., Bombay.

U.O.R. No. e2/46 B 199988
13th July 1951.

ARK.13.7.51.

47-51

GBI 1051

61030

K.Bx

P.W.D

The report on the Gulegud and Ilkal Power Houses of the C.E., Bombay Electric Grid, which is submitted for information with explanatory, is submitted for information with reference to the H.H's minutes at p 10 ante.

2. With regard to the Gulegud Electrification Scheme it may be stated that revised administration approval has been accorded in G.R. No. GBI 1051, dated the 12-6-1951.

At the in ... work

3 Regarding Ilkal, the C.E., Bombay El. Grid, p 15 states that the estimate for this scheme are in hand and will be shortly submitted to Govt. for revised administration approval. No further action is req. on these papers at this stage. The receipt of the estimate may be awaited.

21/7/51

From the C.E's note it will be seen that the site for the power house at Ilkal is yet to be finalised. It seems that the function of foundation stone ceremony in the case of both the power houses will have to be postponed till the monsoon season is over.

21/7/51.

D.A.S.

D.S

CBI 1051
61030.
KR.

P.W.D.

Resubmitted.

2. The pps. may be
refs. n.o. to the C.E., B.E.G.
with a request to state
further developments in
the matter with refce
to his note on p 15 ante.

3. With regard to the
portion marked "A" in the
C.E. B.E.G's note, it may
be stated that the revised
estimates for the electrification
of the four towns, including
Ilkal in the Bijapur Dist have
already been submitted by the
C.E. B.E.G., for the administrative
appl. of Govt. (File No. CBI 1051).
Orders giving revised administrative
appl. in this con. are under issue.
separately.

CHIEF ENGINEER
BOMBAY ELECTRIC GRID, BOMBAY
Inward No. 1649
Date 17/1/52

will be

15/11/52.

15/1/52

A.S.

(EC(P)) M.O. to the C.E., B.E.G., dtd. 7 Jany. 1952

Below Govt.P.W.D., U.O.R.No.GBI.1051/61030, dated 17-1-1952.

Electric Grid Offices

Electrification of certain towns in Bijapur District.

Guledgud : The construction work of power station buildings and allied works is in progress. The engine room has been completed upto gantry bracket level and office and store building upto roof level. The engine room is expected to be ready by the end of February 1952, for erection of power plant and machinery.

Part power plant and equipment such as generating sets, cranes etc., have been received by the suppliers Messrs. Turner Hoare & Co., at Bombay. They will be transporting the same to site at an early date. Switchboards, oil, storage tanks, auxiliaries etc., for power station are yet to come.

Government has been approached for the appointment of construction staff and their approval is awaited.

Fabrication work of line materials is in progress. Long delivery transmission and distribution line materials have been ordered out and 11 kV Insulators, rail poles, P.I.L.C. cables have been delivered at site.

If the materials not yet in hand are received in proper time, the erection work which is programmed to be started in March 1952, is expected to be completed before the end of this year.

2. Ilkal : The work of excavating the well in the power station site has been nearly completed and as the yield from the well is found to be satisfactory the site has been finalised.

Detailed estimates, specifications, designs, drawings and tender documents for all the civil works have been completed and notice to contractors inviting tenders for the work will be issued shortly.

Generating plant and equipment are expected to arrive in Bombay by May 1952.

Revised estimates for administrative approval have been sanctioned by Government.

Long delivery transmission and distribution line materials have been ordered out and some of them have been received at our Bombay godown. Materials such as rails, 11 kV insulators etc., have been despatched to Guledgud for further transport to Ilkal.

The erection work of power plant and machinery is programmed to be started sometime in the fourth quarter of 1952, (by when building work is expected to be finished) and completed by the middle of next year.

T. J. Ramachandrani
24/1/52.

The Secy. to Govt.,
P.W.D., Bombay.

U.O.R.No. 2313
24th January 1952.

ARK.24.1.52.

K25/1

P. W. D.
GBI 1051.

2660

GBI 1051/7660.

P. W. D.
K.

Submitted with reference to the H.M.'s minutes on p. 10 ante.

2. These papers deal with the question of laying of the foundation stone of Guledgud and Ilkal Power Houses in Bijapur District. In April 1951, Shri S.R.Kanthi, P.S. to the H.M.,Agrl. and M.L.As. of Bijapur wished that the H.C.M. should lay the foundation s-tone of Guledgud and Ilkal Power Houses. The H.C.M., however, regretted his inability to accept the invitation. The P.S. then requested the H.M.,P.W.D., in case H.C.M. could not agree, to accept the invitation. It was then agreed after discussion between the H.M.,P.W.D. and P.S. (Shri Kanthi) that the question of foundation stone ceremony be postponed until plans and estimates are ready.

3. Please see in this connection the C.E.,B.E.G.'s latest report. With regard to Guledgud Power House, it will be seen from the report, that the construction work of the power station buildings and allied works is in progress. The engine room has been completed upto gantry bracket level and office and store building upto roof level. The engine room is expected to be ready by the end of February 1952 for erection of power plant and machinery.

4. As regards Ilkal Power House it may be stated that the work of excavating the well in the power station site has been nearly completed and as the yield from the well is found to be satisfactory the site has been finalised. Detailed estimates specifications, designs, tender documents etc. for all the civil works have been completed and notice to contractors inviting tenders for the work will be issued shortly.

5. As the site for the Ilkal Power House has been finalised it is for consideration whether the H.M. would like to perform the foundation s-tone ceremony in the case of Ilkal Power House and also in the case of Guledgud

Power .....

Power House although the construction work of the latter power house building is nearing completion.

13/2/52. Thro' D.E.(I).

14/2/52

BVC.13/2/52.

DS.(DE)

15/2 Secy.

It would be difficult for us to keep pace with the progress of the foundations since cement in both cases may be done otherwise. 21.2.52

22/2

Pers. PHO.

Resubmitted

2. The C.E., B.E.G., may see the above for information.

23/2/52.

25/2/52.

D.O. to the C.E., B.E.G., dd. 26th Feb. 1952.

EE(ERS) 23/2

CHIEF ENGINEER
BOMBAY ELECTRIC GRID, [illegible]AY
Inward No. 6688
Date 27/2

419
27/2/52

Below Govt. P.W.D., U.O.R. No.
GBI/1051/7660 K, dated 26th February, 1952.

ELECTRIC GRID OFFICES.

Seen and returned with compliments.

In the case of Power House Buildings already constructed by this Department in Ratnagiri and Satara Districts there were no ceremonies of laying the foundation stone. As it would be difficult for the H. M., P.W.D., to go to Ilkal and Guledgud in Bijapur District for laying the foundation stone, such a ceremony may be dispensed with.

T. J. [illegible]
10/3/52

Secretary to Govt.

P, W. D., Bombay.

U. O. R. No. 6923

of 11--3--1952.

K 13/3

P. W. D.
GBI 1051
No. 24202

CKV/7-3-'52.

Record.

A. A. Sey.

GBI 1051

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